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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/980,489 | 12/03/2001 | Peter Liggesmeyer | 1454.1120 | 5609 |

21171 7590 09/27/2004

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EXAMINER

NGUYEN BA, HOANG VU A

ART UNIT PAPER NUMBER

2122

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,489

Applicant(s)

LIGGESMEYER, PETER

Examiner

Hoang-Vu A Nguyen-Ba

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/03/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the preliminary amendment filed December 03, 2001.
2. The priority date considered for this application is June 2, 2001, which is the filing date of German Patent Application No. 19925239.4.
3. Claims 17-31 have been examined.

Response to Amendment(s)

4. Per Applicant's request:
 - a. claims 1-16 have been cancelled and new claims 17-31 have been entered.
 - b. the substitute Title, Abstract and Specification have been considered for compliance with the Revised Amendment Practice for Substitute Specification under 37 CFR 1.125 and it is noted that applicant fails to provide a statement that the substitute specification includes no new matter in the preliminary amendment filed December 03, 2001.

Requirement for Information – 37 CFR 1.105

5. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application:

P. Liggesmeyer, Modultest und Modulverifikation – State of the Art, Mannheim, Vienna, Zurich: BI Wissenschaftsverlag, 1990;

DIN 25424-1: Fehlerbaumanalysen; methoden und Bildzeichen, September 1981; and

DIN 25424-2: Fehlerbaumanalyse; Handrechenverfahren zur Auswertung eines Fehlerbaums, Berlin, Beuth Verlag GmbH, April 1990.

6. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 150 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in Applicant's disclosure.

7. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the Applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

8. The Applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the Applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

9. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

Drawings

10. The drawings are objected to because of the following minor informalities:
Figures 1 and 2 contain reference numerals without meaningful legends.

Correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 17, 20, 24, 28 and 31 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Lack of antecedent basis:

Claim 20 recites the limitation “the fault description” in line 2. There is insufficient antecedent basis for this limitation in the claim. It is not clear which fault description is being referred to, e.g., “element fault description” or “overall fault description?”

Claims 24 (lines 3 and 7) and 28 (line 2) recites the limitation “the section of the computer program” . There is insufficient antecedent basis for this limitation in the claim. The limitation “the section of the computer program” should be changed to – the at least one section of the computer program – in order to have proper antecedent basis.

b. Vague and indefinite:

Claims 17, 24 and 31 recite the limitations “program elements” and “reference elements.” It is unclear whether these elements are the same or distinct elements.

For art rejection purposes, these elements are interpreted to mean the same elements.

Claims 17, 24 and 31 recite the limitations “fault description for each reference element” and “element fault description.” It is unclear whether these fault descriptions are the same or different fault descriptions.

For art rejection purposes, these elements are interpreted to mean the same fault descriptions.

Claim Rejections – 35 U.S.C. § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 17-31 are rejected under 35 U.S.C. § 102(a) as being unpatentable over the admitted prior art (APA) of pages 1-3 of applicant’s background

Claims 17, 24 and 31

APA discloses at least a method, a system and a computer-readable storage medium storing at least one program to control a computer to perform a method comprising:

ascertaining a control flow description for the section of the computer program, to describe a flow of control information in the section of the computer program (see at least section [0004]);

ascertaining a data flow description for the section of the computer program, to describe a flow of data in the section of the computer program (see at least section [0007]);

combining the control and data flow descriptions into a joint flow description for the section of the computer program (see at least section [0007]);

selecting program elements from the section of the computer program ();

storing a fault description for each reference element to describe possible faults in the reference element (see at least section [0004]);

ascertaining an element fault description for each selected program element, based on the fault description associated with a corresponding reference element, to describe possible faults in the selected program element (see at least section [0004]); and

ascertaining the overall fault description using the element fault descriptions, with a structure of the overall fault description taking into account a structure of the joint flow description (see at least section [0007]).

APA does not specifically disclose *storing a section of the computer program*. However, this step is deemed to be inherent to APA teachings because in order to determine faults in a program or a section of a program, this program or a section of a program has to be stored on a computer-readable medium and executed by a processor. Without being stored on a computer-readable medium which is needed to realize the program's functionality, the program or section of a program is merely an inoperative set of instructions.

Claims 18 and 25

Rejections of base claims 1 and 24 is incorporated. APA further discloses *wherein the control flow description is a control flow graph* (see at least sections [0004] and [0007]).

Claims 19 and 26

Rejections of base claims 1 and 24 is incorporated. APA further discloses *wherein the data flow description is a data flow graph* (see at least section [0007]).

Claims 20 and 27

Rejections of base claims 1 and 24 is incorporated. APA further discloses *wherein the fault description is a stored fault tree, wherein the element fault description is ascertained as an element fault tree, and wherein the overall fault description is ascertained as an overall fault tree* (see at least sections [0004], [0005], [0008] and [0009]).

Claims 21 and 28

Rejections of base claims 1 and 24 is incorporated. APA further discloses *performing fault analysis in the section of the computer program using the overall fault description* (see at least section [0009]).

Claims 22 and 29

Rejections of base claims 1 and 24 is incorporated. APA does not specifically disclose *wherein the overall fault description is ascertained as an overall fault tree, and wherein said method further comprises altering the overall fault tree in terms of prescribable boundary conditions*. However, this feature is deemed to be inherent to the teaching of DIN 25424-1 and

DIN 25424-2 in sections [0008] and [0009], respectively of applicant's background of invention since these teachings disclose principles relating to fault tree analysis.

Claims 23 and 30

Rejections of base claims 1 and 24 is incorporated. APA does not specifically disclose *wherein said altering comprises adding a complementary fault tree*. However, this feature is deemed to be inherent to the teaching of DIN 25424-1 in sections [0008] and [0009] of applicant's background of invention since these teachings disclose principles relating to fault tree analysis.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (703) 305-0103. The examiner can normally be reached on Tuesday-Friday, 6:00 to 16:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

After October 25, 2004, the examiner can be reached at (571) 272-3701 and the examiner's supervisor at (571) 272-

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.
Should you have questions on access to the Private PAIR system, contact the
Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Hoang Anthony Nguyen Ba" with a long horizontal flourish extending to the right.

ANTONY NGUYEN-BA
PRIMARY EXAMINER

Art Unit 2122

September 21, 2004